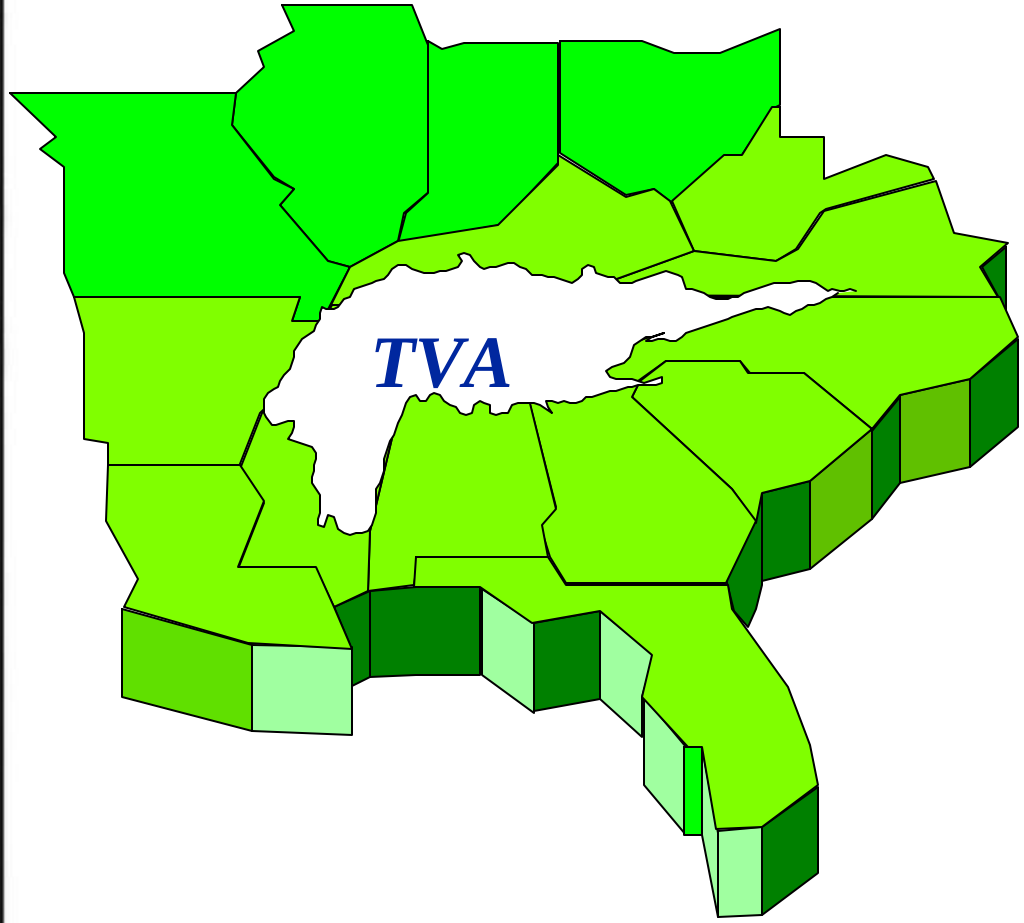
TVA Transmission System Overview

Transmission Customer and Power Marketers' Meeting

Presented by Van Wardlaw
October 2, 2002

TVA Power System



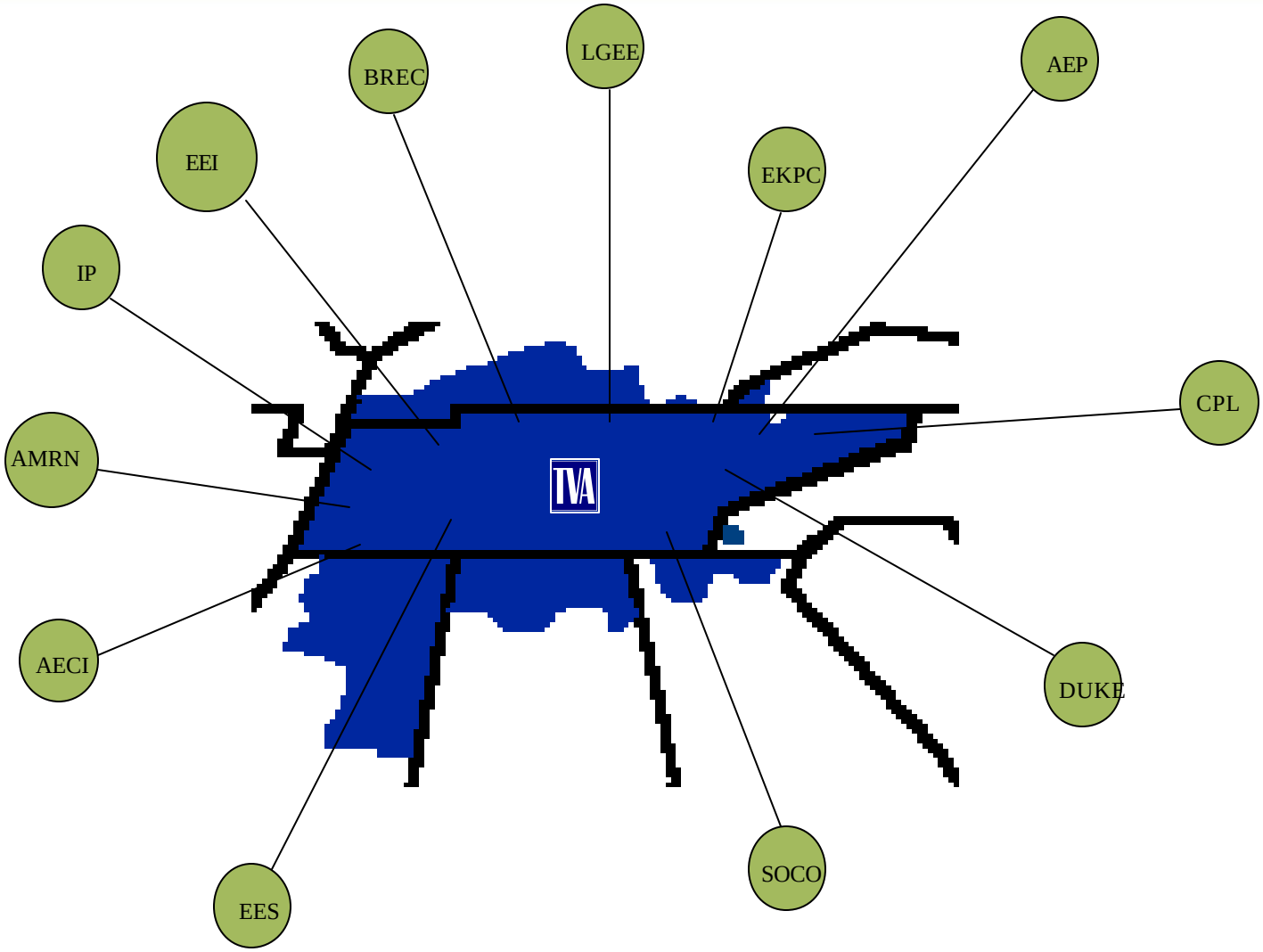
- 80,000 Square Miles
- 7 States
- 57 Interconnections
- $7 Billion Revenue

Peak Demand

Summer 29,344 MW

Winter 27,015 MW

TVA Interconnections



TVA Transmission System

- Delivered 166 billion kWh in FY01
- 17,000 miles of lines
- 130,000 wood/steel structures
- 240,000 R-O-W acres
- 973 ± substations, metering and switching locations
- 2,500 miles fiber optic cable
- 99.999% reliability in 2001

TVA…

…Working on Solutions

TVA Transmission Innovations

- 1st 500-kV Network in the Free World
- 1st to Build Major Interconnections for Seasonal Diversity Exchange and Reliability
- 1st 500-kV Capacitors and 161-kV Fuseless Capacitors
- 1st Large Scale Flexible AC Transmission System (FACTS) Device--Statcom
- 1st to Combine Power Electronics, Fuel Cells and Energy Storage
- 1st to Move From Silicon Science to Diamonds for Power Electronics for FACTS and DC Devices

Excellence in Customer Service

Strengthen working relationships with all of TVA's stakeholders - TVA Strategic Objective

- 8.3 Million Consumers
- 158 Power Distributors
- 62 Directly Served Industries
- 85 Bulk Transmission Customers
- 9 Operating Independent Power Producers

Forum Goals

- Enhance relationship with interconnecting generators and transmission service customers through:
  - Improved understanding of TVA processes
  - Feedback from customers on process effectiveness and areas for improvement
- Improve communication between customers and key TVA staff

TVA Transmission

Keeping the Lights on in a Brave New World